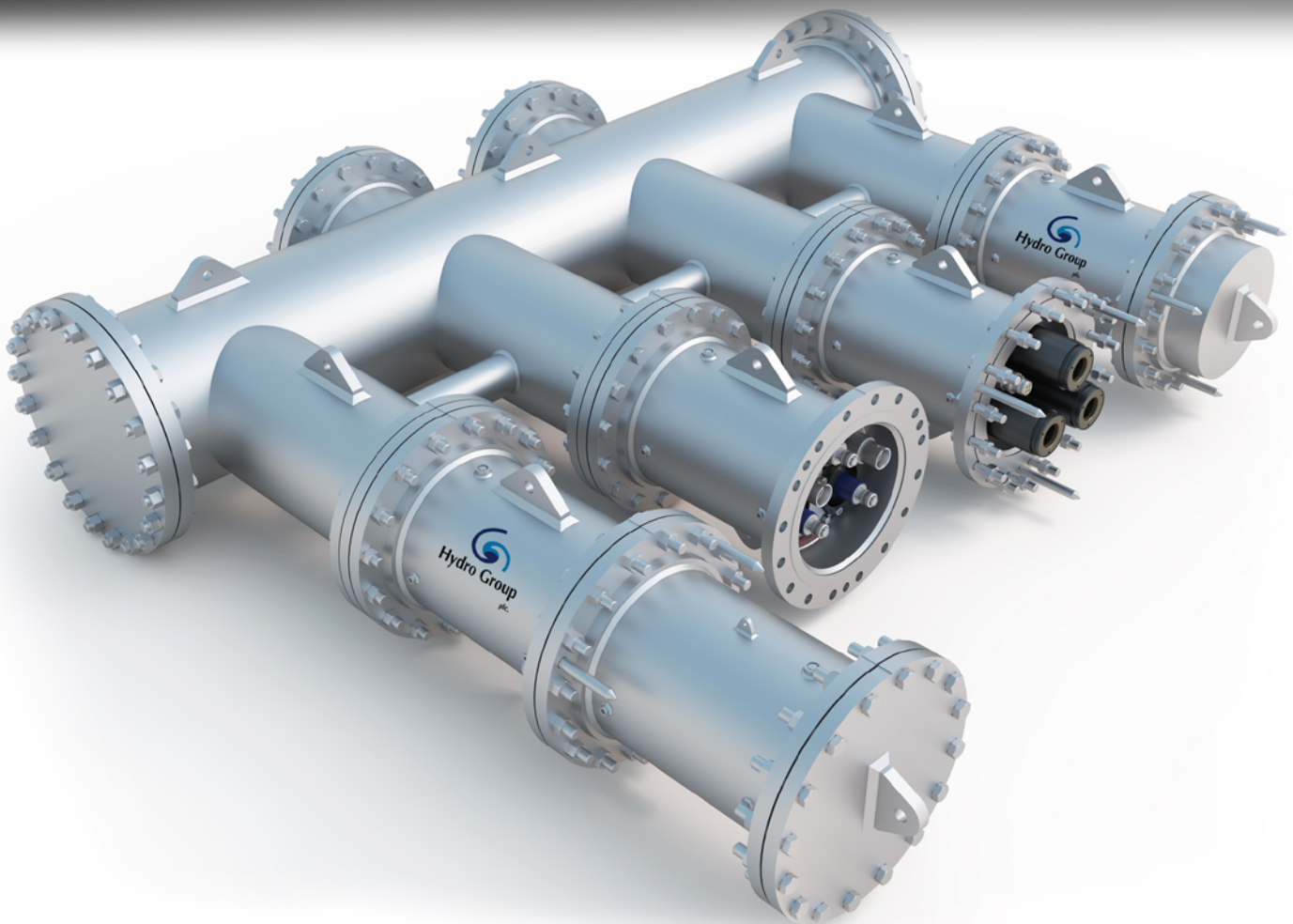


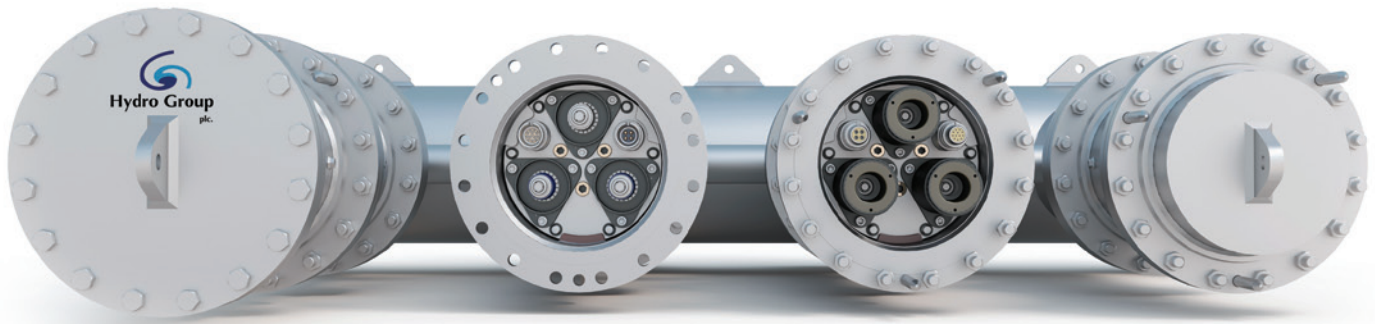
# Power take-offs

## PDH: Power Distribution Hub



## Designed and Manufactured “for your energy system”

Hydro Group’s concept allows multiple energy devices to be connected to a single export cable, reducing the number of shore cables required and cutting the costs of the subsea cabling infrastructure for renewables projects. The Hub utilises similar technology and 16” pipe flange interface as our HRC connector range. It means that HRC connectors or caps can be attached and removed quickly and securely, without the need for repeated re-terminations. The operating line voltages cover up to 24kV systems.



## Benefits

- Modular junction box design allows multiple generator cables to be terminated to a single shore cable
- Direct interface with Hydro Group's HRC range
- 25 year operational lifespan
- Cost effective solution
- Can be deployed onto a range of seabed conditions
- Maintenance free
- No liquid insulating medium
- Low environmental impact
- Corrosion protection
- Wide variety of configurations available (including electrical and optical auxiliaries)
- Long term installation infrastructure
- Dual water ingress protection features throughout for reliable sealing
- Type tested MV components with a long history of service in power applications

## Options

- Dynamic cable design and manufacture
- Bend stiffeners / restrictors and strain terminations designed to suit customers' cables, installation and offshore support
- Third party qualification available on request



tel: +44 (0) 1224 822 996  
sales@hydrogroup.plc.uk  
www.hydrogroupplc.com

## Specifications (based on 12/20(24) kV variant)

### ENVIRONMENTAL

	Value
Operating medium:	Seawater
Seawater temperature range:	- 4 to 25°C
Maximum operating depth:	100MSW

### ELECTRICAL (MAIN POWER)

	Value
No. of phases:	3
Phase-earth voltage rating, U0:	12kV
Phase-phase voltage rating, U:	20kV
Maximum system ph-ph voltage rating, Um:	24kV
Maximum operating current:	630A
Rated short duration power frequency withstand voltage:	48kV
Rated lightning impulse withstand volt. (rise/fall time 1.2/50 µs):	125kV
Maximum continuous partial discharge magnitude at 1.73 x U0:	10pC
Rated short-time withstand current / 0.5 seconds:	50kA
Rated short-time withstand current / 1 second:	31.5kA
Rated peak withstand current:	125kA
Maximum continuous conductor operating temp:	90°C

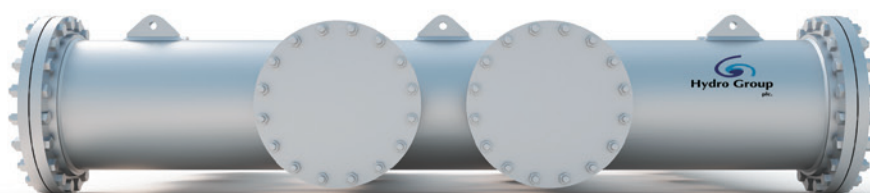
### MECHANICAL

	Value
Alignment and rotation:	metal keyway
Material: (as standard):	stainless steel
Maximum no. of mates (per leg):	50
Pressure rating mated:	161 psi (242 test)
Safe working load (SWL) for lifting:	6.5t
Standard pipe and flange outer shell:	16"

### AUXILIARY CONNECTORS

	Value
Maximum no. of auxiliary connectors (per leg):	3
Maximum no. of fibre optic cores (per leg):	36

Refer to standard HDM shell size 08 specification sheets for further auxiliary connector information, typical values and layouts.



**PDH: Power Distribution Hub**  
Designed and Manufactured "for your energy system"



LRQ 0850566/A

